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Attorney Docket No.: PENN-0754
Inventors: Scott L. Diamond
Serial No.: 09/763,982
Filing Date: April 25, 2001
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In the claims:

Please amend the claims as follows:

B¹
1. (Twice amended) A composition for delivery of a molecule to the nucleus of a eukaryotic cell comprising a nuclear targeting peptide containing a nonclassical, nuclear localization signal which does not interact with importin- α and importin- β , with the proviso that the nuclear targeting peptide does not contain a classical nuclear localization signal.

B²
4. (Amended) A method of delivering selected molecules to nuclei of eukaryotic cells comprising contacting the eukaryotic cells with the selected molecules and a nuclear targeting peptide containing a nonclassical, nuclear localization signal with the proviso that the nuclear targeting peptide does not contain a classical nuclear localization signal.

B³
7. (Twice amended) A compound comprising:
(a) a cationic peptide scaffold; and
(b) a nuclear targeting peptide containing a non-classical nuclear localization sequence which does not interact with importin- α and importin- β , said cationic peptide scaffold being

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B³
conjugated to said nuclear targeting peptide via a chemical linkage with the proviso that the nuclear targeting peptide does not contain a classical nuclear localization signal.

B⁴
9. (Amended) A composition comprising a peptide scaffold, a nuclear targeting peptide containing a nonclassical nuclear localization sequence and a plasmid containing a selected nucleic acid sequence with the proviso that the nuclear targeting peptide does not contain a classical nuclear localization signal.

B⁵
11. (Amended) A method for expressing a selected nucleic acid sequence in eukaryotic cells comprising contacting cells with a mixture of a selected nucleic acid sequence, a peptide scaffold and a nuclear targeting peptide containing a nonclassical nuclear localization signal with the proviso that the nuclear targeting peptide does not contain a classical nuclear localization signal.

12. (Amended) A method for expressing a selected nucleic acid sequence in eukaryotic cells comprising forming a complex between a plasmid containing the selected nucleic acid sequence and a scaffold-nuclear targeting peptide conjugate; and contacting cells with the complex with the proviso that the scaffold-nuclear